

Title (en)
IMPROVED METHOD AND APPARATUS FOR DETECTING OPTICAL PULSES

Publication
EP 0335357 A3 19900912 (EN)

Application
EP 89105502 A 19890329

Priority
US 17515288 A 19880330

Abstract (en)
[origin: EP0335357A2] A method and apparatus for improving the calculation of oxygen saturation and other blood constituents by non-invasive pulse oximeters. The method and apparatus permit more accurate determination of blood flow by collecting time-measures of the absorption signal at two or more wavelengths and processing the collected time-measure to obtain composite pulsatile flow data from which artifacts have been filtered. The processing occurs in the frequency domain. The time-measure is Fourier transformed into its spectral components to form the composite information.

IPC 1-7
A61B 5/00

IPC 8 full level
A61B 5/026 (2006.01); **A61B 5/00** (2006.01); **A61B 5/024** (2006.01); **A61B 5/0245** (2006.01); **A61B 5/145** (2006.01); **A61B 5/1455** (2006.01); **A61B 5/1464** (2006.01); **A61B 5/308** (2021.01)

CPC (source: EP US)
A61B 5/02416 (2013.01 - EP US); **A61B 5/0245** (2013.01 - EP US); **A61B 5/14551** (2013.01 - EP US); **A61B 5/301** (2021.01 - EP); **A61B 5/305** (2021.01 - US); **A61B 5/308** (2021.01 - US); **A61B 5/7207** (2013.01 - EP US); **A61B 5/7225** (2013.01 - EP US); **A61B 5/7257** (2013.01 - EP US)

Citation (search report)
• [A] WO 8801148 A1 19880225 - PHYSIO CONTROL CORP [US]
• [A] US 4167331 A 19790911 - NIELSEN LARRY L
• [AD] WO 8605674 A1 19861009 - NELLCOR INC [US]

Cited by
US7991448B2; US6519486B1; US6810277B2; US7072702B2; EP1709902A3; US5396893A; US6104938A; EP0913121A1; US5971930A; EP0870466A1; US6122535A; US6631281B1; DE19512478A1; US5772589A; DE19512478C2; WO9952420A1; WO2004100780A1; WO2012140559A1; USRE38492E; US6826419B2; USRE38476E; US7469157B2; WO2007122375A2; US8768424B2; US11103150B2; US6650917B2; US6745060B2; US7496393B2; WO9842249A1; WO9842250A1; WO0077674A1; WO9960918A1; WO9316629A1; WO9111956A1; US6229856B1; US6643530B2; US7003339B2; US7221971B2; US8150487B2; US8185180B2; US9801588B2

Designated contracting state (EPC)
AT BE CH DE FR GB LI LU NL

DOCDB simple family (publication)
EP 0335357 A2 19891004; **EP 0335357 A3 19900912**; **EP 0335357 B1 19960508**; AT E137648 T1 19960515; CA 1323432 C 19931019; DE 68926405 D1 19960613; DE 68926405 T2 19960905; FI 891494 A0 19890329; FI 891494 A 19891001; JP 2002282243 A 20021002; JP 3286313 B2 20020527; JP H0245041 A 19900215; US 4911167 A 19900327

DOCDB simple family (application)
EP 89105502 A 19890329; AT 89105502 T 19890329; CA 595256 A 19890330; DE 68926405 T 19890329; FI 891494 A 19890329; JP 2002047150 A 20020117; JP 7793989 A 19890329; US 17515288 A 19880330